(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 9 December 2004 (09.12.2004)

PCT

(10) International Publication Number WO 2004/106409 A1

(51) International Patent Classification⁷: 61/00, 61/12, H01L 51/00, 51/30

C08G 73/00.

(21) International Application Number:

PCT/EP2004/005818

(22) International Filing Date: 28 Ma

28 May 2004 (28.05.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0312409.3

30 May 2003 (30.05.2003) EF

- (71) Applicant (for all designated States except US): COVION ORGANIC SEMICONDUCTORS GMBH [DE/DE]; 65926 Frankfurt am Main (DE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): WALLACE, Paul [GB/GB]; 11, Redwing Rise, Royston, Hertfordshire SG8 7XU (GB).
- (74) Agents: DÖRR, Klaus et al.; Industriepark Höchst, Geb. F821, 65926 Frankfurt am Main (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLYMER

(57) Abstract: The present invention relates to new semiconductive polymers, a process for their manufacture and their use in thin film electronic and optical devices, such as organic light emitting diodes (OLED) and photovoltaic devices, e.g. solar cells and photo detectors.

